

National Climatic Data Center

DATA DOCUMENTATION

FOR

DATA SET 9617 (DSI-9617)

LIGHTNING ARCHIVE

December 16, 2002

National Climatic Data Center
151 Patton Ave.
Asheville, NC 28801-5001 USA

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1. **Abstract:** The Lightning Archive contains a chronological listing, by state, of lightning statistics. The reports are provided by the National Weather Service and contain statistics on locations, fatalities, injuries, gender and damage estimates. The Lightning Archive is a product of the National Climatic Data Center. The data have been compiled from the Storm Data publication since 1959. These data have been encoded into a 30-column text format. In January 1996, the National Weather Service (NWS) implemented a relational database procedure for the dissemination of severe weather information called **StormDat**. Each NWS office FTP's a monthly file to the NWS Office of Meteorology (OM) for inclusion into the "Storm Data" Paradox relational database. The data are compressed and sent to the NCDC for publication and archival.

2. Element Names and Definitions:

Record Position	Element Name	Code Definition and Remarks
1 - 4	Year	In 4 digit format. Ex 1998
5 - 6	Month	In 2 digit number format. (01 - 12) Ex. 12 = December
7 - 8	Day	Day of the month (01 - 31) 99 = missing
9 - 12	Time	All times LST in 24 hour format. Ex. 2359 = 11:59 PM 9999 = missing
13 - 14	State FIPS #	The state FIPS number is a unique number assigned to the state by the National Institute for Standards and Technology. (NIST) See Table 1. 00 = missing
15 - 17	County	The county FIPS number is a unique number assigned to the county by the National Institute for Standards and Technology. 000 = missing
18 - 20	Fatalities	The number of deaths reported for the event. (000 - 999)
21 - 21	Gender	Indicates the gender of the fatalities 0 Not Applicable 1 Male 2 Female 3 Both 4 Unknown
22 - 22	Location	Indicates the location of the fatalities 0 Not Applicable 1 Under Trees 2 In or near water, boating 3 Golfing 4 Under trees on golf course 5 Farming, construction or near heavy equipment 6 Out in the open: fields, playgrounds, ballparks, yard, street 7 Telephone related 8 Other electronics related: radio, TV

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	9	Various other or unknown
23 - 25	Injuries	The number of injuries reported for the event. 000 - 999)
26 - 26	Gender	Indicates the gender of the injuries
	0	Not Applicable
	1	Male
	2	Female
	3	Both
	4	Unknown
27 - 27	Location	Indicates the location of the injuries
	0	Not Applicable
	1	Under Trees
	2	In or near water, boating
	3	Golfing
	4	Under trees on golf course
	5	Farming, construction or near heavy equipment
	6	Out in the open: fields, playgrounds, ballparks, yard, street
	7	Telephone related
	8	Other electronics related: radio, TV
	9	Various other or unknown
28 - 28	Damage Class	The estimated amount of damage incurred by the event.
	0	\$ 0.00 or No damage reported
	1	Less than \$50.00
	2	\$50 - \$500
	3	\$500 - \$5K
	4	\$5K - \$50K
	5	\$50K - \$500K
	6	\$500K - \$5M
	7	\$5M - \$50 M
	8	\$50M - \$500M
	9	\$500M - \$5B
29 - 30	State Identifier	The two letter postal code. Example: AL = Alabama

3. **Start Date:** 19590113

4. **Stop Date:** Ongoing.

5. **Coverage:** North America

- a. Southernmost Latitude: 15° N. Latitude
- b. Northernmost Latitude: 70° N. Latitude
- c. Westernmost Longitude: 140° W. Longitude
- d. Easternmost Longitude: 60° E. Longitude

6. **How to Order Data:**

Ask NCDC's Climate Services about the cost of obtaining this data set.
Phone: 828-271-4800

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FAX: 828-271-4876
E-mail: NCDC.Orders@noaa.gov

7. Archiving Data Center:

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001
Phone: (828) 271-4800.

8. Technical Contact:

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, NC 28801-5001
Phone: (828) 271-4800.

9. Known Uncorrected Problems: None.

10. Quality Statement: This data set has been manually reviewed for errors. It is published as received from the National Weather Service's Weather Forecast Offices.

11. Essential Companion Datasets: The Lightning Archive Data set (DSI-9617) is derived from the Storm Data publication (DSI-3910).

12. References: No information provided with original documentation. For additional information, see:

<http://www.nws.noaa.gov/wsom/manual/CHAPTERF/NF429405.HTML>

TABLE 1. State FIPS Codes (NIST)

FIPS	Alpha	State or State Equivalent FIPS
01	AL	Alabama
02	AK	Alaska
04	AZ	Arizona
05	AR	Arkansas
06	CA	California
08	CO	Colorado
09	CT	Connecticut
10	DE	Delaware
11	DC	District of Columbia
12	FL	Florida
13	GA	Georgia
15	HI	Hawaii
16	ID	Idaho
17	IL	Illinois
18	IN	Indiana
19	IA	Iowa
20	KS	Kansas
21	KY	Kentucky
22	LA	Louisiana
23	ME	Maine
24	MD	Maryland
25	MA	Massachusetts
26	MI	Michigan
27	MN	Minnesota
28	MS	Mississippi
29	MO	Missouri
30	MT	Montana
31	NE	Nebraska
32	NV	Nevada
33	NH	New Hampshire
34	NJ	New Jersey
35	NM	New Mexico
36	NY	New York
37	NC	North Carolina
38	ND	North Dakota
39	OH	Ohio
40	OK	Oklahoma
41	OR	Oregon
42	PA	Pennsylvania
44	RI	Rhode Island

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45	SC	South Carolina
46	SD	South Dakota
47	TN	Tennessee
48	TX	Texas
49	UT	Utah
50	VT	Vermont
51	VA	Virginia
53	WA	Washington
54	WV	West Virginia
55	WI	Wisconsin
56	WY	Wyoming

Puerto Rico and the Outlying Areas:

FIPS Code	Alpha Code	State or State Equivalent
60	AS	American Samoa
66	GU	Guam
69	MP	Northern Mariana Islands
72	PR	Puerto Rico
74	UM	U.S. Minor Outlying Islands
78	VI	Virgin Islands of the U.S.

Freely Associated States:

64	FM	Federated States of Micronesia
68	MH	Marshall Islands
70	PW	Palau

United States Coastal Waters and Great Lakes: (added by Stuart Hinson, NCDC for Storm Data purposes only)

81	LC	LAKE ST CLAIR
82	PS	AMERICAN SAMOA WATERS
83	PM	PACIFIC ISLAND WATERS
84	PH	HAWAII WATERS
85	GM	GULF OF MEXICO
86	PZ	PACIFIC OCEAN
87	AM	CARIBBEAN SEA AND TROPICAL ATLANTIC
88	AN	ATLANTIC OCEAN
89	PK	ALASKA WATERS
90	LH	LAKE HURON
91	LM	LAKE MICHIGAN
92	LS	LAKE SUPERIOR
93	SL	ST LAWRENCE RIVER
94	LO	LAKE ONTARIO

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FIPS State Codes for the Outlying Areas of the United States,
the Freely Associated States, and Trust Territory

American Samoa	60	AS 1
Federated States of Micronesia	64	FM 3
Guam	66	GU 1
Marshall Islands	68	MH 3
Northern Mariana Islands	69	MP 1
Palau	70	PW 4
Puerto Rico	72	PR 1
U.S. Minor Outlying Islands	74	UM 2
Virgin Islands of the U.S.	78	VI 1

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